

ABSTRACT

A bidirectional line switched ring network which enables high-speed operation with improved reliability because of a reduced software processing load is disclosed, and the network includes a plurality of optical transmission equipment sets connected in a ring form, wherein optical transmission equipment provided in a node on the transmission side performs transmission to each lower-order channel by attaching a transmission-side node ID, and, optical transmission equipment provided in a node on the reception side collates the received transmission-side node ID with an expected value of the transmission-side node ID having been set in advance, and when the collation does not match, the optical transmission equipment in the node on the reception side prevents a misconnection in the event of a failure by inserting an alarm indication signal.